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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/058,064

Filing Date: January 29, 2002

Appellant(s): NAKAJIMA ET AL.

Tarik M. Nabi
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

Pursuant to the remand under 37 CFR 41.50(a)(1) by the Board of Patent Appeals and Interferences on June 2, 2009 **for further consideration of a rejection**, a supplemental Examiner's Answer under 37 CFR 41.50(a)(2) is set forth below: the argued subject matter that the pultrusion and spinning process steps in the article claim

are actually supported in the specification clearly enough that one skilled in the art would understand how to make the article, and that these limitations are merely method steps in an article claim thereby setting forth a product by process claim, where the process would have little patentable weight on the article claim, where these rejections were identified by the Board of Patent Appeals and Interferences.

The appellant must within **TWO MONTHS** from the date of the supplemental examiner's answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the rejection for which the Board has remanded the proceeding:

(1) **Reopen prosecution.** Request that prosecution be reopened before the examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit, or other evidence. Any amendment, affidavit, or other evidence must be relevant to the issues set forth in the remand or raised in the supplemental examiner's answer. Any request that prosecution be reopened will be treated as a request to withdraw the appeal. See 37 CFR 41.50(a)(2)(i).

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. If such a reply brief is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened under 37 CFR 41.50(a)(2)(i). See 37 CFR 41.50(a)(2)(ii).

Extensions of time under 37 CFR 1.136(a) are not applicable to the **TWO MONTH** time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

This is in response to the Remand from the Board of Patent Appeals and Interferences filed June 2, 2009, the following is a Supplemental Action to support the original Examiner's Answer filed on January 5, 2007, and includes new grounds of rejection as per the Board of Patent Appeals and Interferences request to consider this ground of rejection. Set forth below is merely the subject matter which is new, and the remaining subject matter from the original Examiner's Answer referenced above should also be considered as still applicable.

(6) Grounds of Rejection to be Reviewed on Appeal

NEW GROUND(S) OF REJECTION

The following rejections are required due to the fact appellant argues "steps" which are method steps that are provided within article claims thereby taking the position that these steps overcome the prior art rejections.

Claims 1-21 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed pultrusion and fiber bundle being "spun" are method steps that were provided to the claims, and though these have basis in the specification, the specification as originally filed is not detailed enough to be enabling such that one skilled in the art would understand, based upon the specification, how to make and use the claimed invention without undue experimentation. As argued by appellant these method steps are considered to be pertinent to the structure of the article in such a way as to overcome the prior art of record, but there is insufficient detail in the specification to suggest how the processes are performed and in what way they may differ from those known in the art in such a way as to be a feature not taught by the prior art, therefore it is considered that the specification does not enable one skilled in the art how to make the claimed article without the need for undue experimentation to arrive at an article which has the required strength when such would require a specific method to arrive at the proper strength article using a process that differs from one already known in the art. Likewise, without the specification clearly setting forth the details of the term "spun" and how this method is performed with respect to the fiber bundle, it cannot be ascertained what method is being described other than spinning the fibers to form the yarn bundle or in a sense twisting these fibers, which is a known method to spin fibers to form a fiber bundle, therefore, without more details as to the method of spinning

being described, this limitation is not enabled by the specification such that one skilled in the art would understand how to make the article, especially when the word "spun" could refer to many different processes.

Claims 1, 3, and 6 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yates (626). The patent to Yates discloses the recited plastic pipe comprising a fibrous layer which can be formed in various angles including an angle of 0 degrees with the longitudinal axis where the reinforcement is made of a plurality of bundles of one of many different fibers or mixtures thereof where the fibers can be glass or carbon fibers having various modulus of elasticity which fall within the recited range of claim 3, further an reinforced fiber sheet can be provided as set forth in column 5, lines 13-19, and the thickness of these layers can be seen to be within the claimed range of claim 6 as set forth in examples I and II, where the pipe can be formed by a pultrusion method, and the outer layer 4 can be seen to have fibers running circumferentially around the shaft. With respect to Yates reinforcement bundles the references incorporated by reference to Ram (950 and 520) and Clarke set forth how the fibers and bundles thereof are formed for the invention of Yates, where for example Ram 950 clearly sets forth in column 3, lines 37-50 that the fibers forming the bundles are formed using wet or dry spun methods, in column 3, line 66 to column 4, line 5 that the filaments making up the multifilament yarn are imparted with a twist to improve handling characteristics. However, the recited "pultrusion" and "spun" limitations are merely setting forth process steps in article claims and therefore are setting forth product-by- process claims, where such would hold little patentable

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weight on the article structure of the final article, especially when the article of the prior art is either identical or only slightly different than the product claimed in the product-by-process claims, where the Patent Office is not equipped to manufacture products by a myriad of processes put before it and then obtain prior art products and make physical comparisons therewith (*In re Brown*, 459 F.2d 531 (CCPA 1972)). Therefore, it appears that the pultrusion and spun processes would not result in a product that is different than the article of Yates, especially when Yates appears to support using some form of pultrusion and spinning of fibers, however, should this be found not to be the case then it would have been obvious to one skilled in the art to use merely routine experimentation with these known methods to optimize the strength of the article especially when it is desired that such have a certain amount of strength to function for its intended use. However, as set forth in *In re Thorpe*, 777 F2d 695 (Fed. Cir. 1985), sets forth that the patentability of a product does not depend on its method of production. Also, *In re Dike*, 394 F.2d 584, 589 (CCPA 1968) it was held that the product itself is not patentably distinguished over the prior art, and process limitations cannot impart patentability to it, and further the USPTO bears a lesser burden of proof in making out a *prima facie* case of obviousness in a product-by-process situation because of its peculiar nature. *Fessman*, 489 F.2d at 744. Therefore, Yates does set forth at least a *prima facie* obvious article that is identical or at least only slightly different from the product as claimed by appellant in the product-by-process claims in that the same structure is set forth with respect to a fiber bundle aligned in the longitudinal direction and provided with a circumferential fiber sheet provided at least

either on an outer surface or an inner surface layer thereof, where the elasticity falls within the range set forth by claim 3, and a thickness within the range set forth in claim 6.

Claims 1-21 stand rejected under 35 U.S.C. 103(a) as being obvious over Nakajima in view of Yates (626).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2). The patent to Nakajima discloses the recited fiber reinforced plastic pipe formed of a longitudinally slit sleeve which can be placed

within a drive shaft, where the sleeve is made by pultrusion, the fibers are parallel and can run longitudinally, a plurality of layers can be provided, the sleeve can be held in by adhesive, various pipe thicknesses are disclosed, and the fibers are known to be as strong as those set forth in Yates and would therefore inherently have the same elasticity, where the process steps of "pultrusion" and "spun" are setting forth merely method steps in an article claim thereby resulting in a product-by-process claim, where the product is only slightly different from the product claimed, but the difference is provided by the reference to Yates below. The patent to Nakajima discloses all of the recited structure with the exception of forming the reinforcing fibers into bundles, forming the extra layers as sheets, and some of the specific properties of the extra layers, however it is considered an obvious choice of mechanical expedients to form the extra layers of any specific elasticity and basis weight using routine experimentation to arrive at optimum values as such only requires routine skill in the art. It would have been obvious to one skilled in the art to modify the fibers in Nakajima to be formed of bundles and to form the extra layers as sheets circumferentially disposed as suggested by Yates as such would provide for a stronger sleeve that would be more resistant to shock and provided with greater reinforcement. However, the recited "pultrusion" and "spun" limitations are merely setting forth process steps in article claims and therefore are setting forth product-by- process claims, where such would hold little patentable weight on the article structure of the final article, especially when the article of the prior art is either identical or only slightly different than the product claimed in the product-by- process claims, where the Patent Office is not equipped to manufacture products by a

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myriad of processes put before it and then obtain prior art products and make physical comparisons therewith (*In re Brown*, 459 F.2d 531 (CCPA 1972)). Therefore, it appears that the pultrusion and spun processes would not result in a product that is different than the article of Nakajima as modified, especially when Nakajima appears to support using some form of pultrusion. However, as set forth in *In re Thorpe*, 777 F2d 695 (Fed. Cir. 1985), sets forth that the patentability of a product does not depend on its method of production. Also, *In re Dike*, 394 F.2d 584, 589 (CCPA 1968) it was held that the product itself is not patentably distinguished over the prior art, and process limitations cannot impart patentability to it, and further the USPTO bears a lesser burden of proof in making out a *prima facie* case of obviousness in a product-by-process situation because of its peculiar nature. *Fessman*, 489 F.2d at 744. Therefore, it is held that the limitations of "pultrusion" and "spun" are merely method steps as argued by appellant and thereby set forth a product-by-process claim where as set forth above when there is little or no difference in final structure of the article has little patentable weight over the prior art, especially when as discussed above Nakajima teaches essentially the same structure with only one difference, that being the fibers being used being provided in bundles which is taught by Yates, and it is not considered that the process would result in an article that is different in structure than the Nakajima article once modified, and as set forth above, with a lack of detail as to how these steps are performed, it is not clear how the method can result in an article that is different from the prior art article.

For the above reasons, it is believed that the rejections should be sustained.

This supplemental examiner's answer contains a new ground of rejection set forth in section (9) above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte dismissal of the appeal* as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

James F. Hook

/James F. Hook/

Primary Examiner, Art Unit 3754

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:

/KAREN M. YOUNG/

Director, Technology Center 3700

Conferees:

Kevin P. Shaver

/Kevin P. Shaver/

Supervisory Patent Examiner, Art Unit 3754

Len Tran

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752